

West Virginia Department of Environmental Protection

Austin Caperton  
Cabinet Secretary

# Title V Operating Permit Revision



## For Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

**Permit Action Number:** SM01 **SIC:** 4922  
**Name of Permittee:** Columbia Gas Transmission, LLC  
**Facility Name/Location:** Cleveland Compressor Station  
**County:** Upshur  
**Permittee Mailing Address:** 1700 MacCorkle Avenue, SE  
Charleston, WV 25314

**Description of Permit Revision:** The purpose of this significant modification is to include requirements for installation of one (1) fuel gas heater (HTR7) within the facility. The installation of fuel gas heater (HTR7) was approved under R13-2394C.

**Title V Permit Information:**

**Permit Number:** R30-09700009-2018  
**Issued Date:** April 10, 2018  
**Effective Date:** April 24, 2018  
**Expiration Date:** April 10, 2023

**Directions To Facility:** Take I-79 to exit 67. Turn right on US-19N and travel 21 miles. Turn right onto WV-4 N and travel 7.3 miles. Turn right onto WV-20 S and travel approximately 9 miles to the station

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THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

A handwritten signature in blue ink, reading "Laura M. Crowder".

Laura M. Crowder  
Director, Division of Air Quality

09/09/2020

Date Issued

Permit Number: **R30-09700009-2018**  
Permittee: **Columbia Gas Transmission, LLC**  
Facility Name: **Cleveland Compressor Station**  
Permittee Mailing Address: **~~5151 San Felipe St., Suite 2400, Houston, TX 77056~~ 1700 MacCorkle Avenue, SE  
Charleston, WV 25314**

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*This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.*

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Facility Location:	State Route 20, Kanawha Head, Upshur County, West Virginia
Facility Mailing Address:	HC32 Box 12, Kanawha Head, WV 26228
Telephone Number:	(304) 548-1630
Type of Business Entity:	LLC
Facility Description:	Natural Gas Transmission Facility
SIC Codes:	Primary 4922; Secondary NA; Tertiary NA
UTM Coordinates:	555.40 km Easting • 4,289.22 km Northing • Zone 17

Permit Writer: Frederick Tipane

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.*

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*Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.*

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## 1.0 Emission Units and Active R13, R14, and R19 Permits

### 1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
06007*	E07	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1955	2,000 HP	N/A
06008*	E08	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1957	2,000 HP	N/A
06009*	E09	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1969	2,000 HP	N/A
06010*	E10	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1969	2,000 HP	N/A
06012*	E12	Combustion Turbine/Centrifugal Compressor; Solar Taurus 70	2015	10,381 HP at 0°F	Combustion Controls
06013*	E13	Combustion Turbine/Centrifugal Compressor; Solar Taurus 70	2015	10,381 HP at 0°F	Combustion Controls
06014*	E14	Combustion Turbine/Centrifugal Compressor; Solar Mars 100	2017	14,766 HP @ 32 °F	Combustion Controls
06015*	E15	Combustion Turbine/Centrifugal Compressor; Solar Mars 100	2017	14,766 HP @ 32 °F	Combustion Controls
060G5*	G5	Reciprocating Engine/Generator set; Waukesha VGF-L36GL, 4Stroke Lean Burn (Emergency Generator)	2015	880 HP	N/A
HTR3*	H3	Line Heater #1 (Fuel Preheater)	2015	0.5 MMBtu/h	N/A
HTR6*	H6	Fuel Gas Heater	2017	1.0 mmBtu/hr	N/A
<del>TK01</del> <a href="#">A27</a>	<del>A24</del> <a href="#">7</a>	Condensate (Pipeline Liquids) Storage Tank	201 <del>65</del>	2,000 gal	N/A
<del>TK02</del> <a href="#">A30</a>	A30	Condensate (Pipeline Liquids) Storage Tank	201 <del>68</del>	1,000 gal	N/A
<del>TK03</del> <a href="#">A31</a>	A31	Condensate (Pipeline Liquids) Storage Tank	201 <del>68</del>	<del>2</del> 1,000 gal	N/A
<a href="#">HTR7</a>	<a href="#">HTR7</a>	<a href="#">Fuel Gas Heater</a>	<a href="#">2020</a>	<a href="#">0.68 MMBTU/hr</a>	<a href="#">None</a>

\* All equipment is fueled exclusively with pipeline quality natural gas.

## 1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2394 <del>B-C</del>	<del>May 5, 2016</del> <a href="#">June 16, 2020</a>

## 2.0 General Conditions

### 2.1 Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

### 2.2 Acronyms

<b>CAAA</b>	Clean Air Act Amendments	<b>NSPS</b>	New Source Performance
<b>CBI</b>	Confidential Business Information		Standards
<b>CEM</b>	Continuous Emission Monitor	<b>PM</b>	Particulate Matter
<b>CES</b>	Certified Emission Statement	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>C.F.R. or CFR</b>	Code of Federal Regulations		
<b>CO</b>	Carbon Monoxide	<b>pph</b>	Pounds per Hour
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>ppm</b>	Parts per Million
<b>DAQ</b>	Division of Air Quality	<b>PSD</b>	Prevention of Significant Deterioration
<b>DEP</b>	Department of Environmental Protection	<b>psi</b>	Pounds per Square Inch
<b>FOIA</b>	Freedom of Information Act	<b>SIC</b>	Standard Industrial Classification
<b>HAP</b>	Hazardous Air Pollutant		
<b>HON</b>	Hazardous Organic NESHAP	<b>SIP</b>	State Implementation Plan
<b>HP</b>	Horsepower	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>lbs/hr or lb/hr</b>	Pounds per Hour	<b>TAP</b>	Toxic Air Pollutant
<b>LDAR</b>	Leak Detection and Repair	<b>TPY</b>	Tons per Year
<b>m</b>	Thousand	<b>TRS</b>	Total Reduced Sulfur
<b>MACT</b>	Maximum Achievable Control Technology	<b>TSP</b>	Total Suspended Particulate
<b>mm</b>	Million	<b>USEPA</b>	United States Environmental Protection Agency
<b>mmBtu/hr</b>	Million British Thermal Units per Hour	<b>UTM</b>	Universal Transverse Mercator
<b>mmft<sup>3</sup>/hr or mmcf/hr</b>	Million Cubic Feet Burned per Hour	<b>VEE</b>	Visual Emissions Evaluation
<b>NA or N/A</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards	<b>VOC</b>	Volatile Organic Compounds
<b>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants		
<b>NO<sub>x</sub></b>	Nitrogen Oxides		

### **2.3. Permit Expiration and Renewal**

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.  
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.  
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.  
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.  
[45CSR§30-6.3.c.]

### **2.4. Permit Actions**

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.  
[45CSR§30-5.1.f.3.]

### **2.5. Reopening for Cause**

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
- a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
  - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
  - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

## **2.6. Administrative Permit Amendments**

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.  
[45CSR§30-6.4.]

## **2.7. Minor Permit Modifications**

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.  
[45CSR§30-6.5.a.]

## **2.8. Significant Permit Modification**

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.  
[45CSR§30-6.5.b.]

## **2.9. Emissions Trading**

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.  
[45CSR§30-5.1.h.]

## **2.10. Off-Permit Changes**

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
  - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
  - c. The change shall not qualify for the permit shield.
  - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
  - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.



- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

**[45CSR§30-5.9.]**

## **2.11. Operational Flexibility**

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

**[45CSR§30-5.8]**

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

**[45CSR§30-5.8.a.]**

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

**[45CSR§30-5.8.c.]**

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

**[45CSR§30-2.39]**

## **2.12. Reasonably Anticipated Operating Scenarios**

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
  - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
  - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

**[45CSR§30-5.1.i.]**

## **2.13. Duty to Comply**

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

**[45CSR§30-5.1.f.1.]**

## **2.14. Inspection and Entry**

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
  - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

**[45CSR§30-5.3.b.]**

## **2.15. Schedule of Compliance**

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
  - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

## **2.16. Need to Halt or Reduce Activity not a Defense**

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

## **2.17. Emergency**

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

**[45CSR§30-5.7.c.]**

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

**[45CSR§30-5.7.d.]**

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**[45CSR§30-5.7.e.]**

## **2.18. Federally-Enforceable Requirements**

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

**[45CSR§30-5.2.a.]**

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

## **2.19. Duty to Provide Information**

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

**[45CSR§30-5.1.f.5.]**

## **2.20. Duty to Supplement and Correct Information**

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

**[45CSR§30-4.2.]**

## **2.21. Permit Shield**

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.  
[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

## **2.22. Credible Evidence**

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.  
[45CSR§30-5.3.e.3.B. and 45CSR38]

## **2.23. Severability**

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.  
[45CSR§30-5.1.e.]

## **2.24. Property Rights**

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.  
[45CSR§30-5.1.f.4]

## **2.25. Acid Deposition Control**

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

**[45CSR§30-5.1.d.]**

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

**[45CSR§30-5.1.a.2.]**

### 3.0 Facility-Wide Requirements

#### 3.1 Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. **[45CSR§6-3.2.]**
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. **[40 C.F.R. §61.145(b) and 45CSR34]**
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. **[45CSR§4-3.1 State-Enforceable only.]**
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. **[45CSR§11-5.2]**
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. **[W.Va. Code § 22-5-4(a)(14)]**
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

**[40 C.F.R. 82, Subpart F]**

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

**[40 C.F.R. 68]**

- 3.1.9. No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.

**[45CSR§17-3.1.; State Enforceable Only]**

### **3.2. Monitoring Requirements**

- 3.2.1. *Reserved.*

### **3.3. Testing Requirements**

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
  - a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
  - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
  - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the



Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
  1. The permit or rule evaluated, with the citation number and language.
  2. The result of the test for each permit or rule condition.
  3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

### 3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
  - a. The date, place as defined in this permit and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of the analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A., 45CSR13, R13-2394, 4.4.1.]

- 3.4.2. **Retention of records.** The permittee shall maintain and retain records of all required information (including monitoring data, support information, reports and notifications) required by this permit for a period of at least five (5) years from the date of each occurrence, monitoring sample, measurement, maintenance, corrective action, report, application, or record creation date. Such records shall be recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit.

- a. For records required by Permit R13-2394, at a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time.

Where appropriate, the permittee may maintain records in computerized form (e.g., on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

[45CSR§30-5.1.c.2.B., 45CSR13, R13-2394, 3.4.1., 45CSR34, 40 CFR §63.10(b)(1)]

- 3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.  
[45CSR§30-5.1.c. State-Enforceable only.]

### 3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.  
[45CSR§§30-4.4. and 5.1.c.3.D.]
- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.  
[45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

#### DAQ:

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

#### US EPA:

Section Chief  
U.S. Environmental Protection Agency,  
Region III  
Enforcement and Compliance Assurance  
Division Air Section (3ED21)  
~~Associate Director~~  
~~Office of Air Enforcement and Compliance~~  
~~Assistance (3AP20)~~  
~~U. S. Environmental Protection Agency~~  
~~Region III~~  
1650 Arch Street  
Philadelphia, PA 19103-2029

**DAQ Compliance and Enforcement<sup>1</sup>:**

DEPAirQualityReports@wv.gov

<sup>1</sup>For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.  
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

**DAQ:**

DEPAirQualityReports@wv.gov

**US EPA:**

R3\_APD\_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

**DAQ:**

DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

**[45CSR§30-5.1.c.3.C.]**

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

**[45CSR§30-5.1.c.3.B.]**

- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

**[45CSR§30-4.3.h.1.B.]**

- 3.5.10. During compliance certification, the facility shall certify that the facility burns natural gas in all stationary equipment regulated under this permit except, when applicable, for emergency equipment (i.e. diesel generators).

**[45CSR§30-5.1.c.3.C.]**

### **3.6. Compliance Plan**

- 3.6.1. *Reserved.*

### **3.7. Permit Shield**

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
  - a. **45CSR10 - To Prevent and Control Air Pollution from the Emission of Sulfur Oxides:** In accordance with 45CSR§10-10.1., since the line heaters HTR3, ~~and~~ HTR6, and HTR7 have a heat input under 10 mmBtu/hr they are exempt from sections 3, 6, 7 and 8 of this rule. The facility is not defined as a manufacturing process and therefore Section 4 of this rule is not applicable to the heaters, engines or turbines. The facility does not combust refinery or process gas streams and therefore Section 5 of this rule is not applicable.

- b. **45CSR21 - To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds:** This facility is not located in one of the affected counties.
- c. **45CSR27 - To Prevent and Control the Emissions of Toxic Air Pollutants:** Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment “used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.”
- d. **40 C.F.R. Part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:** - HTR3, ~~and~~ HTR6, ~~and~~ HTR7 each have a design heat input capacity less than 10 MMBtu/hr. Therefore, they are not subject to this subpart in accordance with 40 CFR §60.40c(a).
- e. **40 C.F.R. Part 60 Subpart K and Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (Subpart K) and After May 18, 1978, and Prior to July 23, 1984 (Subpart Ka):** All tanks at the station are below the applicability criteria of 40,000 gallons in capacity. Therefore, they are not subject to Subpart K in accordance with 40 CFR §60.110(a) nor Subpart Ka in accordance with 40 CFR §60.110a(a).
- f. **40 C.F.R. Part 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984:** - All tanks at the station are below 75 m<sup>3</sup> in capacity. Therefore, they are not subject to this subpart in accordance with 40CFR§60.110b(a).
- g. **40 C.F.R. 60 Subpart GG - Standards of Performance for Stationary Gas Turbines** – The combustion turbines commenced construction, modification, or reconstruction after February 18, 2005 and are regulated under 40 CFR 60 Subpart KKKK. Therefore, they are exempt from the requirements of Subpart GG.
- h. **40 C.F.R. Part 60 Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011):** The station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both. As a result, the Station has no affected sources operating within this source category.
- i. **40 C.F.R. Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines:** There are no compression ignition engines at this facility.
- j. **40 C.F.R. Part 60 Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution for which Construction, Modification, or Reconstruction Commenced after August 23, 2011 and on or before September 18, 2015.** The Cleveland Compressor Station is downstream of the custody transfer point of Columbia’s transmission system. Therefore, the centrifugal compressors 06012 and 06013 are not subject to this subpart. The Storage Vessel requirements defined for transmission sources were evaluated for pipeline liquids storage vessels ~~TK01~~ A27, A30, and A31 and were found not to be applicable because emissions are well below 6 tpy of VOC accordance with 40 CFR §60.5365(e).

- k. **40 C.F.R. Part 63 Subpart HHH** - *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*: The Transmission Station is not subject to Subpart HHH since there are no affected dehydration units utilized at this site.
- l. **40 C.F.R. Part 64** - *Compliance Assurance Monitoring*: There are no add-on control devices at this facility. Therefore, the provisions of Part 64 are not applicable in accordance with 40 CFR §64.2(a)(2). *(Note - the combustion controls for the turbines are not considered control devices per §64.1)*

### 3.8. Emergency Operating Scenario

- 3.8.1. For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life-threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:
  - a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;
  - b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;
  - c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;
  - d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) business days;
  - e. The permittee must provide written notification to the Director within five (5) business days of the replacement. This notification must contain:
    - 1. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;
    - 2. Identification of the engine(s) being temporarily replaced;
    - 3. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;
    - 4. Projected duration of the replacement engine(s); and
    - 5. The appropriate certification by a responsible official.

[45CSR§30-12.7]

#### **4.0 Fuel Heaters [emission point ID(s): H3, H6, HTR7]**

##### **4.1. Limitations and Standards**

- 4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.  
**[45CSR§2-3.1.]**
- 4.1.2. Compliance with the visible emission requirements of 45CSR§2-3.1 (Section 4.1.1 of this permit) shall be determined in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director.  
**[45CSR§2-3.2.]**
- 4.1.3. You must meet each work practice standard in Table 3 (i.e., complete a tune-up every 5 years as specified in §63.7540), to 40 CFR 63 Subpart DDDDD, for each fuel heater.  
**[45CSR34, 40 CFR §§63.7500(a)(1) and (e), Table 3 - Item 1 to 40 CFR 63 Subpart DDDDD]**
- 4.1.4. At all times, you must operate and maintain each fuel heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.  
**[45CSR34, 40 CFR §63.7500 (a)(3)]**
- 4.1.5. The following conditions and requirements are specific to Line Heater #1 (ID HTR3):
  - a. NO<sub>x</sub> emissions emitted to the atmosphere from heater HTR3 shall not exceed 0.21 tons per year on a rolling yearly total basis.
  - b. CO emissions emitted to the atmosphere from heater HTR3 shall not exceed 0.18 tons per year on a rolling yearly total basis.
  - c. Heater HTR3 shall be designed and constructed with a maximum design heat input of 0.50 MMBtu/hr. The condition satisfies compliance with the limitation of 45 CSR §2-3.1.
  - d. For the purpose of complying with Subpart DDDDD of Part 63 as Gas 1 units, the permittee shall perform a tune-up on each heater in accordance with 40 CFR §63.7540(a)(12). The first tune-up shall be completed no later than 61 months after initial start-up of the heater, and thereafter once every 61 months. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. Such tune-ups shall consist of the following:
    1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown, but inspected at least once every 72 months). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;



2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (permittee may delay the inspection until the next scheduled unit shutdown);
4. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject; and
5. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

**[45CSR13, R13-2394, 4.1.3., 45CSR34, 40 CFR §§63.7540(a)(10), (12), and (13), §63.7510(g), §63.7515(d)]**

4.1.6. The following conditions and requirements are specific to Fuel Gas Heater (ID HTR6):

- a. NO<sub>x</sub> emissions emitted to the atmosphere from heater HTR6 shall not exceed 0.43 tons per year on a rolling yearly total basis.
- b. CO emissions emitted to the atmosphere from heater HTR6 shall not exceed 0.36 tons per year on a rolling yearly total basis.
- c. Heater HTR6 shall be designed and constructed with a maximum design heat input of 1.0 MMBtu/hr. The condition satisfies compliance with the limitation of 45 CSR §2-3.1.
- d. For the purpose of complying with Subpart DDDDD of Part 63 as Gas 1 units, the permittee shall perform a tune-up on each heater in accordance with 40 CFR §63.7540(a)(12). The first tune-up shall be completed no later than 61 months after initial start-up of the heater, and thereafter once every 61 months. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. Such tune-ups shall consist of the following:
  1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown, but inspected at least once every 72 months). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
  2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (permittee may delay the inspection until the next scheduled unit shutdown);
  4. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject; and



5. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

**[45CSR13, R13-2394, 4.1.4., 45CSR34, 40 CFR §§63.7540(a)(10), (12), and (13), §63.7510(g), §63.7515(d)]**

4.1.7. The following conditions and requirements are specific to the fuel gas heater (ID HTR7):

- a. NOx emissions emitted to the atmosphere from heater HTR7 shall not exceed 0.29 tons per year on a rolling yearly total basis.
- b. CO emissions emitted to the atmosphere from heater HTR7 shall not exceed 0.24 tons per year on a rolling yearly total basis.
- c. Heater HTR7 shall be designed and constructed with a maximum design heat input of 0.68 MMBtu/hr. The condition satisfies compliance with the limitation of 45 CSR §2-3.1
- d. For the purpose of complying with Subpart DDDDD of Part 63 as Gas 1 units, the permittee shall perform a tune-up on each heater in accordance with 40 CFR §63.7540(a)(12). The first tune-up shall be completed no later than 61 months after initial start-up of the heater, and thereafter once every 61 months. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. Such tune-ups shall consist of the following:
  - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown, but inspected at least once every 72 months). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
  - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (permittee may delay the inspection until the next scheduled unit shutdown);
  - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject; and
  - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer;

**[45CSR13, R13-2394, 4.1.6., 45CSR34, 40 CFR §§63.7540(a)(10), (12), and (13), §63.7510(g), §63.7515(d)]**

## 4.2. Monitoring Requirements

- 4.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct visible emissions observations using Method 22 for the purpose of demonstrating compliance with Section 4.1.1. If visible emissions are observed, the permittee shall conduct a Method 9 reading unless the cause for visible emissions is corrected within 24 hours. Records of observation will be kept for at least 5 years from the date of observation.  
[45CSR§30-5.1.c.]

## 4.3. Testing Requirements

- 4.3.1. See conditions 4.1.5.d., ~~and~~ 4.1.6.d., ~~and~~ 4.1.7.d.

## 4.4. Recordkeeping Requirements

- 4.4.1. The permittee shall keep the following records in accordance with 40CFR§63.7555. This includes but is not limited to the following information during the tune up as required in Condition 4.1.5.d., 4.1.6.d., ~~and~~ 4.1.7.d. and 40 CFR §63.7540:
- a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
  - b. A description of any corrective actions taken as a part of the tune-up.
- [45CSR13, R13-2394, 4.4.6., 45CSR34, 40 CFR §§63.7540(a)(10)(vi) and 63.7555(a)(1)]
- 4.4.2. The permittee must keep a copy of each notification and report that you submitted to comply with 40 CFR 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).  
[45CSR34, 40 CFR §63.7555(a)(1)]
- 4.4.3. The permittee shall comply with the following recordkeeping requirements:
- a. Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
  - b. As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
  - c. You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.  
[45CSR34, 40 CFR §63.7560]

- 4.4.4. **Record of Monitoring.** See Condition 3.4.1.  
[45CSR13, R13-2394, 4.4.1.]

#### 4.5. Reporting Requirements

- 4.5.1. You must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For the initial compliance demonstration for each fuel heater, you must submit the Notification of Compliance Status before the close of business on the 60th day following the completion of all initial compliance demonstrations for all boiler or process heaters at the facility according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs 4.5.1.a. through d. of this section, as applicable.
- a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR 63 Subpart DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under §241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of §241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.
  - b. In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
    1. “This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi).”

[45CSR34, 40CFR §63.7530(f), §§63.7545(e)(1), and (8)]

- 4.5.2. The permittee shall submit “5-year Compliance Reports” for Heaters (HTR3, HTR6, HTR7) electronically using CEDRI that is accessed through the EPA’s Center Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form for this report is not available in CEDRI at the time the report is due, the permittee shall submit the report to the Administrator and Director using the addresses listed in Condition 3.5.3. The first compliance report shall be submitted no later than five years after the initial start-up of the unit and the first date ending on January 31. Subsequent reports shall be submitted once every five years afterwards. Such reports shall contain the information specified in 40 CFR §§63.7550(c)(5) (i) through (iii) and (xiv) which are:
- a. Company and facility name, and address;
  - b. Process unit information, emission limitations, and operating parameter limitations;
  - c. Date of report and beginning and ending dates of the reporting period;
  - d. Include the date of the most recent tune-up for each boiler; and
  - e. Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
  - f. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

The permittee shall maintain records of such reports in accordance with Condition 3.4.2.

[**45CSR13, R13-2394, 4.5.2., 45CSR34, 40CFR §§63.7550(b), (b)(1), (b)(5), (c)(1), & (c)(5)(i) through (iii) (xiv), (xvii), and (h)(3)**]

#### **4.6. Compliance Plan**

4.6.1. *Reserved.*

## 5.0 Reciprocating Internal Combustion Engine [emission point ID(s): G5]

### 5.1. Limitations and Standards

5.1.1. The following conditions and requirements are specific to the internal combustion engine for the Emergency Generator #5) (ID 060G5):

a. Emissions from emergency generator shall not exceed the following:

	g/Hp-hr		ppmvd at 15% O <sub>2</sub>
NO <sub>x</sub>	2.0	Or	160
CO	4.0		540
VOC <sup>1</sup>	1.0		86

<sup>1</sup>Emission of formaldehyde shall be excluded when determining compliance with this VOC limit.

- b. Compliance with the limits in Item a. shall be determined using the appropriate equations listed in 40 CFR §60.4244 (see condition 5.3.3.).
- c. There is no time limit on the use of the engine in emergency situations. The engine can operate for combined non-emergency purposes, which include emergency demand response, maintenance and testing, and other non-emergency use for a maximum of 100 hours per year. Within the 100 hours per year, the engine can only operate:
1. 15 hours per year for emergency demand response. Emergency demand response is determined by the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3 or other authorized entity as determined by the Reliability Coordinator; and
  2. 50 hours per year for non-emergency use. The non-emergency situations cannot be used for peak shaving or to generate income for the facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

The operating limits imposed in this condition are on a calendar year basis.

- d. The engine shall be equipped with a non-resettable hour-meter prior to start-up.
- e. The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engines in a manner consistent with good air pollution control practice for minimizing emissions.
- f. The engine shall only be fired with pipeline quality natural gas.

[45CSR13, R13-2394, 4.1.5., 45CSR16, 40 CFR §60.4233(e), §60.4237(a), §60.4243(b)(2)(ii), §60.4243(d) and Table 1 to 40 CFR 60 Subpart JJJJ, 45CSR34, 40 CFR §§63.6640(f)(1), (f)(2) and (f)(3)]

- 5.1.2. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR §60.4233 over the entire life of the engine.  
[45CSR16, 40 CFR §60.4234]

## 5.2. Monitoring Requirements

- 5.2.1. *Reserved*

## 5.3. Testing Requirements

- 5.3.1. For the purposes of demonstrating compliance with the emission standards in Condition 5.1.1. and 40 CFR §60.4233(e), the permittee shall conduct an initial performance test within one year after initial startup. After the initial test, subsequent performance testing shall be conducted every 8,760 hours of operation or 3 years, whichever comes first. If the engine is not operational, the permittee must conduct the performance test immediately upon startup of the engine. These tests must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements of §60.8, under the specific conditions that are specified by Table 2 to Subpart JJJJ of Part 60 – Requirements for Performance Test (*See* 5.3.2.), and in accordance with Condition 3.3.1. of this permit. Records of such testing shall be maintained in accordance with Condition 3.4.2. of this permit. Three separate test runs must be conducted for each performance test as specified in 40 CFR §60.8(f) and last at least 1 hour. The performance tests may not be conducted during periods of startup, shutdown, or malfunction, as specified in §60.8(c).  
[45CSR13, R13-2394, 4.3.2., 45CSR16, 40 CFR §60.8(a), §60.4243(b)(2)(ii), and §§60.4244(a), (b) and (c)]
- 5.3.2. As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

**Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests**

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244	a. limit the concentration of NO <sub>x</sub> in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for NO <sub>x</sub> , O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) <sup>ad</sup>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A <sup>e</sup> , or ASTM Method D6348-03 <sup>de</sup>	(c) Measurements to determine moisture must be made at the same time as the measurement for NO <sub>x</sub> concentration.
		v. Measure NO <sub>x</sub> at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005) <sup>ad</sup> , Method 320 of 40 CFR part 63, appendix A <sup>e</sup> , or ASTM Method D6348-03 <sup>de</sup>	(d) Results of this test consist of the average of the three 1-hour or longer runs.

For each	Complying with the requirement to	You must	Using	According to the following requirements
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for CO, O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) <sup>ad</sup>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A <sup>e</sup> , or ASTM Method D6348-03 <sup>de</sup>	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.
		v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005) <sup>ade</sup> , Method 320 of 40 CFR part 63, appendix A <sup>e</sup> , or ASTM Method D6348-03 <sup>de</sup>	(d) Results of this test consist of the average of the three 1-hour or longer runs.



For each	Complying with the requirement to	You must	Using	According to the following requirements
	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for VOC, O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) <sup>ad</sup>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A <sup>e</sup> , or ASTM Method D6348-03 <sup>de</sup>	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a hydrocarbon cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6 <sup>e</sup> , Method 320 of 40 CFR part 63, appendix A <sup>e</sup> , or ASTM Method D6348-03 <sup>de</sup>	(d) Results of this test consist of the average of the three 1-hour or longer runs.

<sup>a</sup>Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

<sup>b</sup>You may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O<sub>2</sub> content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17

<sup>c</sup>You may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (<http://www.epa.gov/ttn/emc/prelim/otm11.pdf>).

<sup>d</sup>Incorporated by reference; see 40 CFR 60.17.

<sup>e</sup>You must meet the requirements in §60.4245(d).

**[45CSR16, Table 2 to 40 CFR 60 Subpart JJJJ]**

5.3.3. The permittee must follow the following performance test procedures:

- a. To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP-hr} \quad (\text{Eq.1})$$

Where:

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

$1.912 \times 10^{-3}$  = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

- b. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP-hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C<sub>d</sub> = Measured CO concentration in ppmv.

$1.164 \times 10^{-3}$  = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- c. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP-hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C<sub>d</sub> = VOC concentration measured as propane in ppmv.

$1.833 \times 10^{-3}$  = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- d. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

$RF_i$  = Response factor of compound i when measured with EPA Method 25A.

$C_{Mi}$  = Measured concentration of compound i in ppmv as carbon.

$C_{Ai}$  = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \quad (\text{Eq. 5})$$

Where:

$C_{icorr}$  = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

$C_{imeas}$  = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \quad (\text{Eq. 6})$$

Where:

$C_{Peq}$  = Concentration of compound i in mg of propane equivalent per DSCM.

[45CSR16, 40 CFR §§60.4244(d),(e), (f) and (g)]

## 5.4. Recordkeeping Requirements

5.4.1. The permittee must keep the following records:

- All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification.
- Maintenance conducted on the engine.
- If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a noncertified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[45CSR16, 40 CFR §60.4245(a)]

5.4.2. The permittee shall keep records of the hours of operation for the engine identified as 060G5. The records must document how many hours are spent for emergency operation, including what classified the operation

as an emergency, and how many hours spent for non-emergency operation with corresponding reason for the non-emergency. Such records shall be maintained in accordance with Condition 3.4.2. and must be in a manner to demonstrate compliance with the operating limits of Condition 5.1.1.c.

[45CSR13, R13-2394, 4.2.2., 45CSR16, 40 CFR §60.4245(b)]

5.4.3. **Record of Monitoring.** See Condition 3.4.1.

[45CSR13, R13-2394, 4.4.1.]

## **5.5. Reporting Requirements**

5.5.1. A copy of each performance test as conducted in §60.4244 must be submitted within 60 days after the test has been completed.

[45CSR16, 40 CFR §60.4245(d)]

## **5.6. Compliance Plan**

5.6.1. *Reserved*

## **6.0 Combustion Turbines [emission point ID(s): E12, E13, E14, E15]**

### **6.1. Limitations and Standards**

6.1.1. The following conditions and requirements are specific to Solar Taurus 70 Turbines #2 and #3 (ID 06012 & 06013):

- a. Emissions from each combustion turbine shall not exceed the following:
  1. Emissions of nitrogen oxides (NO<sub>x</sub>) shall be controlled with the combustion controls. Each turbine shall not discharge nitrogen oxides (NO<sub>x</sub>) emissions in excess of 25 ppm at 15 percent O<sub>2</sub> when operating at load conditions at or above 75 percent of peak load and/or when operating temperatures are at or above 0 °F. For when the operating loads of the turbine are less than 75% of peak load and/or operating temperatures are less than 0 °F, NO<sub>x</sub> emissions rate from the turbine shall not exceed 150 ppm at 15 percent O<sub>2</sub>. Annual NO<sub>x</sub> emissions from each turbine shall not exceed 19.91 tpy on a 12-month rolling total. This limit applies at all times, including periods of startup, shutdown, or malfunction.
  2. Emissions of CO shall not exceed 28.5 tons, on a rolling 12 month total basis.
  3. Emissions of VOC shall not exceed 2.40 tons, on a rolling 12 month total basis.
  4. Emissions of SO<sub>2</sub> shall not exceed 0.060 lb of SO<sub>2</sub>/MMBtu heat input.
- b. Each turbine shall only be fired with pipeline-quality natural gas.
- c. The permittee must operate and maintain each turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

**[45CSR13, R13-2394, 4.1.1., 45CSR16, 40 CFR §60.4320(a), §60.4330(a)(2), §60.4333(a), and Table 1 to 40 CFR 60 Subpart KKKK]**

6.1.2. The following conditions and requirements are specific to Solar Mars 100 Turbines #4 and #5 (ID 06014 & 06015):

- a. Emissions from each combustion turbine shall not exceed the following:
  1. Emissions of nitrogen oxides (NO<sub>x</sub>) shall be controlled with the combustion controls. Each turbine shall not discharge nitrogen oxides (NO<sub>x</sub>) emissions in excess of 25 ppm at 15 percent O<sub>2</sub> when operating at load conditions at or above 75 percent of peak load and/or when operating temperatures are at or above 0 °F. For when the operating loads of the turbine are less than 75% of peak load and/or operating temperatures are less than 0 °F, NO<sub>x</sub> emissions rate from the turbine shall not exceed 150 ppm at 15 percent O<sub>2</sub>. Annual NO<sub>x</sub> emissions from each turbine shall not exceed 31.38 tpy on a 12-month rolling total. This limit applies at all times, including periods of startup, shutdown, or malfunction.
  2. Emissions of CO shall not exceed 48.12 tons, on a rolling 12 month total basis.

3. Emissions of SO<sub>2</sub> shall not exceed 0.060 lb of SO<sub>2</sub>/MMBtu heat input.
4. Emissions of VOC shall not exceed 3.73 tons, on a rolling 12 month total basis.
- b. Each turbine shall only be fired with pipeline-quality natural gas.
- c. The permittee must operate and maintain each turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

**[45CSR13, R13-2394, 4.1.2., 45CSR16, 40 CFR §60.4320(a), §60.4330(a)(2), §60.4333(a), and Table 1 to 40 CFR 60 Subpart KKKK]**

- 6.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

**[45CSR13, R13-2394, 4.1.76.]**

## **6.2. Monitoring Requirements**

- 6.2.1. For purpose of demonstrating compliance with the SO<sub>2</sub> limit for combustion turbines 06012 and 06013, the permittee shall monitor the total sulfur content of the fuel combusted in the turbines in accordance with 40 CFR §60.4360 or:
- a. By using the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet and has potential sulfur emissions of less than less than 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input; or
  - b. By representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR Part 75 is required.

If you elect not to demonstrate sulfur content using options a. or b. above, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

**[45CSR16, 40 CFR §60.4360, §60.4365, §60.4370(b)]**

- 6.2.2. For purpose of demonstrating compliance with the SO<sub>2</sub> limit for combustion turbines 06014 and 06015, the permittee shall maintain the Federal Energy Regulatory Commission (FERC) tariff limit on total sulfur content of 20 grains of sulfur per 100 standard cubic feet of natural gas combusted in the turbines.  
**[45CSR13, R13-2394, 4.1.2.iii., 45CSR16, 40 CFR §60.4365(a)]**
- 6.2.3. For the purpose of determining compliance with the annual limits for each combustion turbine (#06012, 06013, 06014, 06015), the permittee shall monitor and record the following for each calendar month:

- a. Hours the turbine operated at normal conditions, which is when the turbine is at or above 50% load, and the ambient temperature is above 0 °F.
- b. Hours the turbine operated at low-load conditions, which is when the turbine load is less than 50% load.
- c. Hours the turbine operated at low temperature conditions, which is when the ambient temperature is less than 0 °F but at or above -20 °F.
- d. Hours the turbine operated at very-low temperature conditions, which is when the ambient temperature is less than -20 °F.
- e. The number of startup and shutdown cycles that occurred during the month.

Such records shall be maintained in accordance with Condition 3.4.2. of this permit.

**[45CSR13, R13-2394, 4.2.1.]**

### 6.3. Testing Requirements

- 6.3.1. For the purposes of demonstrating compliance with the NO<sub>x</sub> emission standards in Condition 6.1.1.(a)(i), 6.1.2.(a)(i) and 40 CFR §60.4320(a), the permittee shall conduct an initial performance test within 60 days after achieving maximum output of each turbine, but no later than 180 days after initial startup. After the initial test, subsequent performance testing shall be conducted annually (no more than 14 months following the previous test) unless the previous results demonstrate that the affected units achieved compliance of less than or equal to 75 percent of the NO<sub>x</sub> emission limit, then the permittee may reduce the frequency of subsequent tests to once every two years (no more than 26 calendar months following the previous test) as allowed under 40 CFR §60.4340(a). If the results of any subsequent performance test exceed 75 percent of the NO<sub>x</sub> emission limit, then the permittee must resume annual performance tests. Such testing shall be conducted in accordance with Condition 3.3.1. and 40 CFR §60.4400. Records of such testing shall be maintained in accordance with Condition 3.4.2.

**[45CSR13, R13-2394, 4.3.1., 45CSR16, 40 CFR §60.4340(a), §60.4400(a)]**

- 6.3.2. There are two general methodologies that you may use to conduct the performance tests. For each test run:
  - a. Measure the NO<sub>x</sub> concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of this part. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO<sub>x</sub> emission rate:

$$E = \frac{1.194 \times 10^{-7} \times (NO_x)_c \times Q_{std}}{P} \quad (\text{Eq.5})$$

Where:

E = NO<sub>x</sub> emission rate, in lb/MWh

$1.194 \times 10^{-7}$  = conversion constant, in lb/dscf-ppm

(NO<sub>x</sub>)<sub>c</sub> = average NO<sub>x</sub> concentration for the run, in ppm



$Q_{std}$  = stack gas volumetric flow rate, in dscf/hr

P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or

- b. Measure the NO<sub>x</sub> and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of this part. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the NO<sub>x</sub> emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the NO<sub>x</sub> emission rate in lb/MWh.

**[45CSR13, R13-2394, 4.3.1., 45CSR16, 40 CFR §60.4400(a)(1)]**

- 6.3.3. Sampling traverse points for NO<sub>x</sub> and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

**[45CSR13, R13-2394, 4.3.1., 45CSR16, 40 CFR §60.4400(a)(2)]**

- 6.3.4. Notwithstanding paragraph 6.3.3. of this section, you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in Appendix A of 40 CFR Part 60 if the following conditions are met:
  - a. You may perform a stratification test for NO<sub>x</sub> and diluent pursuant to the procedures specified in section 6.5.6.1(a) through (e) of Appendix A of 40 CFR Part 75.
  - b. Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test:
    1. If each of the individual traverse point NO<sub>x</sub> concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5ppm or ±0.5 percent CO<sub>2</sub> (or O<sub>2</sub>) from the mean for all traverse points, then you may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NO<sub>x</sub> concentration during the stratification test; or
    2. For turbines with a NO<sub>x</sub> standard greater than 15 ppm @ 15% O<sub>2</sub>, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO<sub>x</sub> concentrations is within ±5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3ppm or ±0.3 percent CO<sub>2</sub> (or O<sub>2</sub>) from the mean for all traverse points.

**[45CSR13, R13-2394, 4.3.1., 45CSR16, 40 CFR §60.4400(a)(3)]**

- 6.3.5. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.
- a. Compliance with the applicable emission limit in §60.4320 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NO<sub>x</sub> emission rate at each tested level meets the applicable emission limit in §60.4320.
- b. The ambient temperature must be greater than 0 °F during the performance test.

[45CSR13, R13-2394, 4.3.1., 45CSR16, 40 CFR §§60.4400(b)(4) and (6)]

#### 6.4. Recordkeeping Requirements

- 6.4.1. Compliance with the annual emission limits in permit conditions 6.1.1 and 6.1.2 for NO<sub>x</sub>, CO and VOC for the turbines (06012, 06013, 06014, 06015) shall be based on a rolling 12 month total. The emissions from each turbine shall be determined monthly using the following equation:

$$ME_{Px} = DLN_{Px} * DLN \text{ hours} + LL_{Px} * LL \text{ hours} + LT_{Px} * LT \text{ hours} + VLT_{Px} * VLT \text{ hours} + SS_{Px} * SS \text{ cycles}$$

Where:

$ME_{Px}$	=	Monthly emissions of Pollutant X
$DLN_{Px}$	=	Hourly emission rate of Pollutant X during normal operation
$DLN$	=	Number of hours of normal operation in said month
$LL_{Px}$	=	Hourly emission rate of Pollutant X during low load (<50%) operation
$LL$	=	Number of hours of low load operation in said month
$LT_{Px}$	=	Hourly emission rate of Pollutant X during low temperatures (<0°F)
$LT$	=	Number of hours of low temperature operation in said month
$VLT_{Px}$	=	Hourly emission rate of Pollutant X during very low temperatures (<-20°F)
$VLT$	=	Number of hours of very low temperature operation in said month
$SS_{Px}$	=	Unit emission rate (lb/cycle) for Pollutant X during startup/shutdown cycles
$SS$	=	Number of startup/shutdown cycles for said month

Hourly emission rates used in the above calculation shall be based on best available data which is data collected during source specific testing or the data for specific model turbine provided or published by the manufacturer. This determination shall be performed within 30 days after the end of the calendar month and

the monthly emissions shall be summed with the preceding 11 months to determine compliance with the annual limits in Condition 6.1.1.a. and 6.1.2.a. Records of the monthly total and 12 month totals shall be maintained in accordance with Condition 3.4.2.

**[45CSR13, R13-2394, 4.4.4.]**

- 6.4.2. The permittee shall maintain current and valid documentation that the natural gas consumed by the combustion turbines specifying that the maximum total sulfur content is 20 grains of sulfur or less per 100 cubic feet of natural gas. Said documentation can be purchase contracts, tariff sheets, or transportation contracts. Such records shall be maintained in accordance with Condition 3.4.2., except that these records can be maintained off-site but must be made available for inspection within 15 days of the request. By satisfying this requirement the permittee is exempted from the total sulfur monitoring requirement of §60.4370. These records satisfy Conditions 6.1.1.b. and 6.1.2.b.

**[45CSR13, R13-2394, 4.4.5. 45CSR16, 40 CFR §60.4365(a)]**

- 6.4.3. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

**[45CSR13, R13-2394, 4.4.2.]**

- 6.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

**[45CSR13, R13-2394, 4.4.3.]**

- 6.4.5. **Record of Monitoring.** See Condition 3.4.1.

**[45CSR13, R13-2394, 4.4.1.]**

## **6.5. Reporting Requirements**

- 6.5.1. For each affected unit required to periodically determine the fuel sulfur content under 40 CFR Subpart KKKK, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

**[45CSR16, 40 CFR §60.4375(a)]**

- 6.5.2. For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

**[45CSR16, 40 CFR §60.4375(b)]**

## **6.6. Compliance Plan**

- 6.6.1. *Reserved*

## **7.0 Collection of Fugitive Emissions Facility-Wide Pursuant to 40 CFR §60.5397a**

### **7.1. Limitations and Standards**

- 7.1.1. The permittee must reduce fugitive greenhouse gas (GHG) (in the form of a limitation on emissions of methane) and VOC emissions from the permitted facility by complying with the following requirements.
- a. You must monitor all fugitive emission components, as defined in 40 CFR §60.5430a, in accordance with Section 7.2 of this permit. You must repair all sources of fugitive emissions in accordance with condition 7.1.2. below. You must keep records in accordance with Section 7.4 of this permit and report in accordance with Section 7.5 of this permit. For purposes of 40 CFR §60.5397a, fugitive emissions are defined as: Any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm or greater using Method 21.

#### **[45CSR16, 40 CFR §60.5397a(a)]**

- 7.1.2. Each identified source of fugitive emissions shall be repaired or replaced in accordance with conditions 7.1.2.a. and 7.1.2.b.
- a. Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after detection of the fugitive emissions.
  - b. If the repair or replacement is technically infeasible, would require a vent blowdown, a compressor station shutdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next compressor station shutdown, well shutdown, well shut-in, after an unscheduled, planned or emergency vent blowdown or within 2 years, whichever is earlier.
  - c. Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.
    1. For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions.
    2. For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken, must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).
    3. Operators that use Method 21 to resurvey the repaired fugitive emissions components are subject to the following resurvey provisions.
      - i. A fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in section 8.3.3 of Method 21 are used.

- ii. Operators must use the Method 21 monitoring requirements specified in condition 7.2.2.h.2. or the alternative screening procedures specified in section 8.3.3 of Method 21.
- 4. Operators that use optical gas imaging to resurvey the repaired fugitive emissions components, are subject to the following resurvey provisions.
  - i. A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.
  - ii. Operators must use the optical gas imaging monitoring requirements specified in condition 7.2.2.g.

**[45CSR16, 40 CFR §60.5397a(h)]**

## **7.2. Monitoring Requirements**

- 7.2.1. You must develop an emissions monitoring plan that covers the collection of fugitive emissions components at the compressor station within each company-defined area in accordance with conditions 7.2.2. and 7.2.3.  
**[45CSR16, 40 CFR §60.5397a(b)]**
- 7.2.2. Fugitive emissions monitoring plans must at a minimum, include the following elements:
  - a. Frequency for conducting surveys. Surveys must be conducted at least as frequently as required by conditions 7.2.5. and 7.2.6.
  - b. Technique for determining fugitive emissions (*i.e.*, Method 21 at 40 CFR Part 60, Appendix A-7, or optical gas imaging).
  - c. Manufacturer and model number of fugitive emissions detection equipment to be used.
  - d. Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emission components that are unsafe to repair. Your repair schedule must at a minimum, meet the requirements of condition 7.1.2.
  - e. Procedures and timeframes for verifying fugitive emission component repairs.
  - f. Records that will be kept and the length of time records will be kept.
  - g. If you are using optical gas imaging, your plan must also include the following elements:
    - 1. Verification that your optical gas imaging equipment meets the following specifications. This verification is an initial verification and may either be performed by the facility, by the manufacturer, or by a third party. For the purposes of complying with the fugitives emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging
      - i. Your optical gas imaging equipment must be capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.

- ii. Your optical gas imaging equipment must be capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of  $\leq 60$ g/hr from a quarter inch diameter orifice.
- 2. Procedure for a daily verification check.
- 3. Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.
- 4. Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.
- 5. Procedures for conducting surveys, including the following items:
  - i. How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.
  - ii. How the operator will deal with adverse monitoring conditions, such as wind.
  - iii. How the operator will deal with interferences (e.g., steam).
- 6. Training and experience needed prior to performing surveys.
- 7. Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.
- h. If you are using Method 21 of Appendix A-7 of 40 CFR Part 60, your plan must also include the following elements. For the purposes of complying with the fugitive emissions monitoring program using Method 21 a fugitive emission is defined as an instrument reading of 500 ppm or greater.
  - 1. Verification that your monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 CFR Part 60, Appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If you wish to use an analyzer other than a FID-based instrument, you must develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to your compound of interest).
  - 2. Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 CFR Part 60, Appendix A-7, including Section 8.3.1.

**[45CSR16, 40 CFR §60.5397a(c)]**

- 7.2.3. Each fugitive emissions monitoring plan must include at a minimum, the following elements, as applicable.
- a. Sitemap.

- b. A defined observation path that ensures that all fugitive emissions components are within sight of the path. The observation path must account for interferences.
- c. If you are using Method 21, your plan must also include a list of fugitive emissions components to be monitored and method for determining location of fugitive emissions components to be monitored in the field (e.g. tagging, identification on a process and instrumentation diagram, etc.).
- d. Your plan must also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with condition 7.2.6.b.1, and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with condition 7.2.6.b.2.

**[45CSR16, 40 CFR §60.5397a(d)]**

- 7.2.4. Each monitoring survey shall observe each fugitive emissions component, as defined in 40 CFR §60.5430a, for fugitive emissions.

**[45CSR16, 40 CFR §60.5397a(e)]**

- 7.2.5. You must conduct an initial monitoring survey within 60 days of the startup of a new compressor station for each new collection of fugitive emissions components at the new compressor station or by June 3, 2017, whichever is later. For a modified collection of fugitive components at a compressor station, the initial monitoring survey must be conducted within 60 days of the modification or by June 3, 2017, whichever is later.

**[45CSR16, 40 CFR §60.5397a(f)(2)]**

- 7.2.6. A monitoring survey of each collection of fugitive emissions components at a compressor station must be performed at the frequencies specified in condition 7.2.6.a., with the exceptions noted in conditions 7.2.6.b. and c.
- a. A monitoring survey of the collection of fugitive emissions components at a compressor station within a company defined area must be conducted at least quarterly after the initial survey. Consecutive quarterly monitoring surveys must be conducted at least 60 days apart.
  - b. Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor must meet the following specifications:
    - 1. A written plan must be developed for all of the fugitive emissions components designated difficult-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by conditions 7.2.1., 7.2.2., and 7.2.3.
    - 2. The plan must include the identification and location of each fugitive emissions component designated as difficult-to-monitor.
    - 3. The plan must include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.
    - 4. The plan must include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once per calendar year.



- c. Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. Fugitive emissions components that are designated unsafe-to-monitor must meet the following specifications:
  1. A written plan must be developed for all of the fugitive emissions components designated unsafe-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by conditions 7.2.1., 7.2.2., and 7.2.3.
  2. The plan must include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.
  3. The plan must include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.
  4. The plan must include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.
- d. The requirements of condition 7.2.6.a. are waived for any collection of fugitive emissions components at a compressor station located within an area that has an average calendar month temperature below 0°Fahrenheit for two of three consecutive calendar months of a quarterly monitoring period. The calendar month temperature average for each month within the quarterly monitoring period must be determined using historical monthly average temperatures over the previous three years as reported by a National Oceanic and Atmospheric Administration source or other source approved by the Administrator. The requirements of condition 7.2.6.a. shall not be waived for two consecutive quarterly monitoring periods.

[45CSR16, 40 CFR §§60.5397a(g)(2), (3), (4) and (5)]

### **7.3. Testing Requirements**

7.3.1. *Reserved*

### **7.4. Recordkeeping Requirements**

- 7.4.1. Records for each monitoring survey shall be maintained as specified §60.5420a(c)(15).  
[45CSR16, 40 CFR §60.5397a(i)]
- 7.4.2. Records for each collection of fugitive emissions components identified below must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by 40 CFR 60 Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.
  - a. The fugitive emissions monitoring plan as required in conditions 7.2.1., 7.2.2., and 7.2.3.
  - b. The following records of each monitoring survey
    1. Date of the survey.

2. Beginning and end time of the survey.
3. Name of operator(s) performing survey. You must note the training and experience of the operator.
4. Monitoring instrument used.
5. When optical gas imaging is used to perform the survey, one or more digital photographs or videos, captured from the optical gas imaging instrument used for conduct of monitoring, of each required monitoring survey being performed. The digital photograph must include the date the photograph was taken and the latitude and longitude of the collection of fugitive emissions components at a well site or collection of fugitive emissions components at a compressor station imbedded within or stored with the digital file. As an alternative to imbedded latitude and longitude within the digital file, the digital photograph or video may consist of an image of the monitoring survey being performed with a separately operating GPS device within the same digital picture or video, provided the latitude and longitude output of the GPS unit can be clearly read in the digital image.
6. Fugitive emissions component identification when Method 21 is used to perform the monitoring survey.
7. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
8. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
9. Documentation of each fugitive emission, including the following information:
  - i. Location.
  - ii. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
  - iii. Number and type of components for which fugitive emissions were detected.
  - iv. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
  - v. Instrument reading of each fugitive emissions component that requires repair when Method 21 is used for monitoring.
  - vi. Number and type of fugitive emissions components that were not repaired as required in condition 7.1.2.
  - vii. Number and type of components that were tagged as a result of not being repaired during the monitoring survey when the fugitive emissions were initially found as required in condition 7.1.2.c.2.
  - viii. If a fugitive emissions component is not tagged, a digital photograph or video of each fugitive emissions component that could not be repaired during the monitoring survey when the fugitive emissions were initially found as required in in condition 7.1.2.c.2. The digital photograph or

video must clearly identify the location of the component that must be repaired. Any digital photograph or video required under this paragraph can also be used to meet the requirements under in condition 7.4.2.b.5., as long as the photograph or video is taken with the optical gas imaging instrument, includes the date and the latitude and longitude are either imbedded or visible in the picture.

- ix. Repair methods applied in each attempt to repair the fugitive emissions components.
  - x. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
  - xi. The date of successful repair of the fugitive emissions component.
  - xii. Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.
- c. For the collection of fugitive emissions components at a compressor station, if a monitoring survey is waived under in condition 7.2.6.d., you must maintain records of the average calendar month temperature, including the source of the information, for each calendar month of the quarterly monitoring period for which the monitoring survey was waived.

**[45CSR16, 40 CFR §60.5397a(i), §60.5420a(c)(15)]**

## **7.5. Reporting Requirements**

- 7.5.1. Annual reports shall be submitted for each collection of fugitive emissions components that include the information specified in 40 CFR §60.5420a(b)(7).  
**[45CSR16, 40 CFR §60.5397a(j)]**
- 7.5.2. You must submit annual reports containing the information specified in this permit condition. You must submit annual reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>).) You must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (<https://www3.epa.gov/ttn/chief/cedri/>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in 40 CFR §60.4. Once the form has been available in CEDRI for at least 90 calendar days, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this permit, regardless of the method in which the reports are submitted. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40 CFR §60.5410a. Subsequent annual reports are due no later than same date each year as the initial annual report. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included.
- a. The following general information for all reports.
- 1. The company name, facility site name associated with the affected facility, US Well ID or US Well ID associated with the affected facility, if applicable, and address of the affected facility. If an address is not available for the site, include a description of the site location and provide the latitude

and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

2. An identification of each affected facility being included in the annual report.
  3. Beginning and ending dates of the reporting period.
  4. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- b. For the collection of fugitive emissions components at each compressor station within the company-defined area, the records of each monitoring survey including the following information. For the collection of fugitive emissions components at a compressor station, if a monitoring survey is waived under condition 7.2.6.d, you must include in your annual report the fact that a monitoring survey was waived and the calendar months that make up the quarterly monitoring period for which the monitoring survey was waived.
1. Date of the survey.
  2. Beginning and end time of the survey.
  3. Name of operator(s) performing survey. If the survey is performed by optical gas imaging, you must note the training and experience of the operator.
  4. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
  5. Monitoring instrument used.
  6. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
  7. Number and type of components for which fugitive emissions were detected.
  8. Number and type of fugitive emissions components that were not repaired as required in §60.5397a(h).
  9. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
  10. The date of successful repair of the fugitive emissions component.
  11. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
  12. Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

**[45CSR16, 40 CFR §60.5397a(j), §§60.5420a(b)(1), (b)(7) and (11)]**

## **7.6. Compliance Plan**

7.6.1. *Reserved.*